Name Key Date

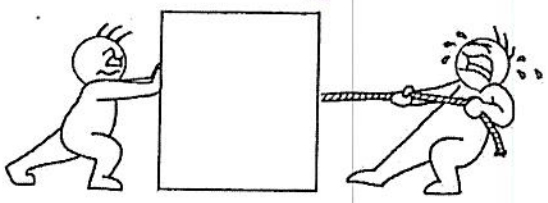
Forces Notes Science 7

Aim: I can describe what causes objects to move or stay still.

Directions: Read pages 33-35 in your textbook. Use the information AND diagrams to help you fill out this note sheet.

Define Force:

A push or pull on an object



How are forces described?

A force is described by its strength and direction in which it acts. The strength and direction of a force can be represented by an arrow, which points in the direction of the force.

The SI unit for force is the Newton and is abbreviated with the letter N

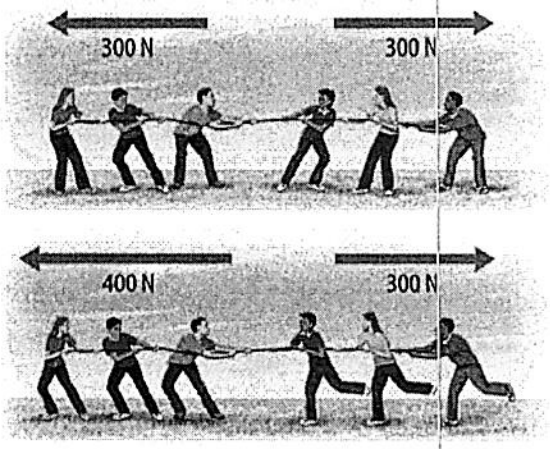
How do forces affect motion?

The combination of all forces on an object is called the Net force.

Use the picture to the right to complete the chart below.

Type of Force	Equal in Strength?	Will the object's motion change?
Balanced	Yes	No
Unbalanced	No	Yes

Balanced and Unbalanced Forces

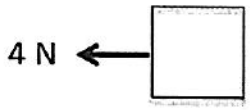


Rules for Calculating Net Force

- By calculating net force, you will determine the strength of the net force in Newtons and an arrow showing the direction of movement.
- When two forces are in the same direction, they are added together.
- When forces are in opposing directions, the smaller force is always subtracted from the larger force.

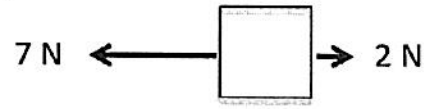
Examples:

1. 4+0=4



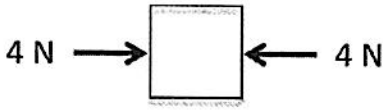
Net Force: 4 N to the left

2. 7-2=5



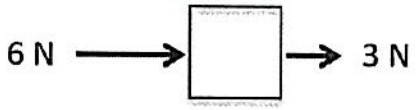
Net Force: 5 N to the left

3. 4-4=0



Net Force: 0N

4. 6+3=9

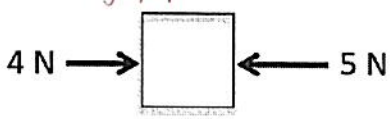


Net Force: 9 N to the right

5. 8-4=4

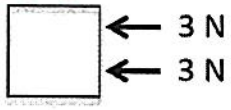
Net Force: 4 N to the left

6. 5-4=1



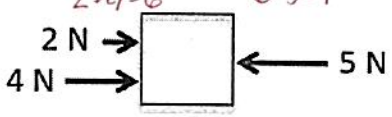
Net Force: 1 N to the left

7. 3+3=6



Net Force: 6 N to the left

8. 2+4=6 6-5=1



Net Force: 1 N to the right